

## Remarks

Claims 11-24 are now pending in this application. Applicant has canceled claims 1-10 and presents new claims 11-24 to clarify the present invention. Applicant respectfully requests favorable reconsideration of this application.

Applicants have amended the specification to include reference characters 2',  $\alpha'$ , and 8'. These reference characters are utilized to identify in Fig. 2 similar elements identified as 2,  $\alpha$ , and 8 in Figs. 1 and 7. Accordingly, Applicant submits that the drawings comply with PCT Rule 11.13(l) and respectfully requests withdrawal of the objection to the drawings.

Applicant has amended the dependency of the claims. Applicant submits that the claims comply with 37 C.F.R. § 1.75(c) and respectfully request withdrawal of the objection to the claims.

Applicant has amended the claims to address the indefiniteness rejection. Applicant submits that all pending claims comply with 35 U.S.C. § 112, second paragraph and respectfully request withdrawal of this rejection.

The Examiner rejected claims 1-6 and 9 under 35 U.S.C. § 103(a) as being unpatentable over *Quantum well infrared photodetectors with bi-periodic grating couplers*, to Lee et al. in view of U.S. patent 5,056,889 to Morgan.

The combination of Lee et al. and Morgan does not suggest the present invention since, among other things, the combination does not suggest a single detector having a detection surface that includes a grating surface that varies over the detection surface as recited in independent claims 11 and 22. Rather, the references suggest a grating arrangement that includes different gratings on different structures. By including a grating structure having variation over the surface of the detector, the present invention achieves a more even sensitivity over the entire surface of the detector. This results in the present invention achieving a superior picture quality.

In view of the above, the references relied upon in the office action, whether considered alone or in combination, do not suggest patentable features of the present invention. Therefore, the references relied upon in the office action, whether considered alone or in combination, do not make the present invention obvious. Accordingly, Applicant respectfully requests withdrawal of the rejections based upon the cited references.

In conclusion, Applicant respectfully requests favorable reconsideration of this case and early issuance of the Notice of Allowance.

If an interview would facilitate the prosecution of this case, Applicant urges the Examiner to contact the undersigned at the telephone number listed below.

The undersigned authorizes the Commissioner to charge fee insufficiency and credit overpayment associated with this communication to Deposit Account No. 22-0261.

Respectfully submitted,

Date: 5-27-04

A handwritten signature in cursive script, appearing to read "Eric Franklin", written over a horizontal line.

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